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(71) Applicant (*for all designated States except US*): NANOSPHERE, INC. [US/US]; 1818 Skokie Boulevard, Northbrook, IL 60062 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): GARIMELLA, Viswanadham [IN/US]; 910 Washington Street, Apartment 1C, Evanston, IL 60202 (US). STORHOFF, James, J. [US/US]; 1735 Washington Street, Evanston, IL 60202 (US).

(74) Agent: MIAO, Emily; McDonnell Boehnen Hulbert & Berghoff, Suite 3200, 300 South Wacker Drive, Chicago, IL 60606 (US).

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(54) Title: BIOCONJUGATE-NANOPARTICLE PROBES

(57) Abstract: The invention provides nanoparticle-bioconjugate probes that are useful for detecting target analytes such as nucleic acids. The probes of the invention are stable towards heat and resistant to displacement by thiol containing compounds such as DTT (dithiothreitol).

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/35888

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12Q 1/68; C07H 21/00, 21/02, 21/04  
 US CL : 435/6; 536/23.1, 25.3

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/6; 536/23.1, 25.3

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,599,668 A (STIMPSON et al.) 04 February 1997, see entire document.	1-99
Y	US 6,214,560 B1 (YGUERABIDE et al.) 10 April 2001, see entire document.	1-99

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

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Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 Facsimile No. (703) 305-3230

Authorized officer

Jezia Riley

Telephone No. 571-272-1600

INTERNATIONAL SEARCH REPORT

PCT/US02/35888

**Continuation of B. FIELDS SEARCHED Item 3:**

STN

search terms: nanoparticles, oligonucleotides, conjugates, thio, disulfide